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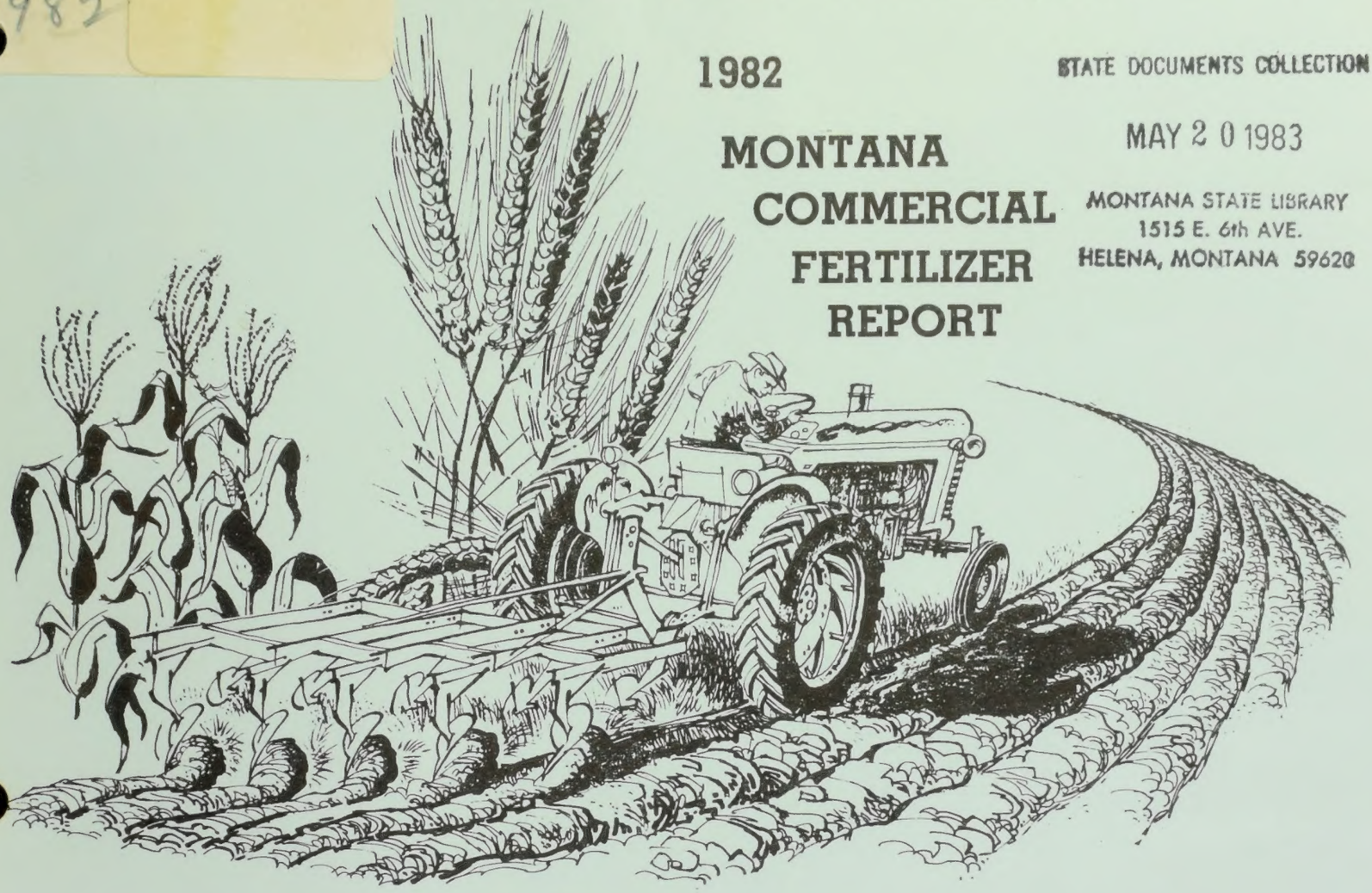

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MONTANA DEPARTMENT OF AGRICULTURE

Plant Industry Division

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This report consists of the following sections:

Commercial.....Pages 1-17

Soil Amendment.....Page 17

Specialty.....Pages 17-19

Statistical.....Pages 20-23

Abbreviations used:

P_2O_5.....available phosphoric acid

K_2O.....soluble potash

C.....claimed

F.....found

ppm.....parts per million

*.....deficiency

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MANUFACTURER/DISTRIBUTOR BRAND/PRODUCT NAME	PLACE OF COLLECTION	SAMPLE NUMBER	BAG/ BULK	NITROGEN C	 F	P_2O_5 C	 F	K_2O C	 F	MICRONUTRIENT C	 F
AGRIFEEDS & SERVICE, INC. 1518 Dodge Avenue Helena, MT 59601											
16-20-0	Helena	6035	bulk	16	17.9	20	20.0				
BEKER INDUSTRIES CORP. Box 5700 Greenwich, CT 06836											
11-53-0	Conrad	5943	bulk	11	10.6	53	53.5				
11-53-0	Carter	5954	bulk	11	10.8	53	53.0				
18-46-0	Wolf Point	5957	bulk	18	17.4	46	45.9				
18-46-0	Havre	6024	bulk	18	17.4	46	46.5				
18-46-0	Bridger	6037	bulk	18	17.4	46	47.4				
11-53-0	Dillon	6064	bulk	11	10.7	53	53.6				
11-53-0	Miles City	6073	bulk	11	10.8	53	52.1*				
18-46-0	Lewistown	6074	bulk	18	17.6	46	46.2				
18-46-0	Billings	6112	bulk	18	17.1*	46	46.3				
18-46-0	Laurel	6115	bulk	18	17.2*	46	46.7				
18-46-0	Harlowton	6129	bulk	18	17.4	46	47.7				
11-53-0	Harlowton	6130	bulk	11	10.8	53	52.6				
18-46-0	Billings	6188	bulk	18	17.4	46	47.0				
18-46-0	Billings	6191	bulk	18	17.4	46	47.1				
11-53-0	Geraldine	6203	bulk	11	10.7	53	53.7				
18-46-0	Ronan	6217	bulk	18	17.3	46	47.4				
11-53-0	Power	6284	bulk	11	10.3*	53	53.2				
18-46-0	Billings	6316	bulk	18	17.1*	46	47.3				
11-53-0	Billings	6317	bulk	11	10.4	53	53.3				
11-53-0	Belgrade	6329	bulk	11	10.6	53	53.9				
18-46-0	Belgrade	6330	bulk	18	17.3	46	46.8				
18-46-0	Havre	6354	bulk	18	17.4	46	46.0				
11-53-0	Highwood	6389	bulk	11	10.7	53	54.1				
11-53-0	Lewistown	6392	bulk	11	10.5	53	53.3				
11-53-0	Lewistown	6403	bulk	11	10.2*	53	52.8				
11-53-0	Harlowton	6410	bulk	11	10.4	53	53.4				
11-53-0	Ryegate	6412	bulk	11	10.8	53	49.4*				
18-46-0	Ryegate	6413	bulk	18	17.6	46	47.0				
11-53-0	Lewistown	6416	bulk	11	11.4	53	53.1				
18-46-0	Lewistown	6417	bulk	18	17.9	46	46.6				
11-53-0	Fort Benton	4632	bulk	11	10.5	53	53.0				
18-46-0	Three Forks	6451	bulk	18	17.8	46	46.8				
11-53-0	Three Forks	6453	bulk	11	10.6	53	53.9				
18-46-0	Great Falls	6456	bulk	18	17.3	46	46.5				
11-53-0	Great Falls	6459	bulk	11	10.9	53	52.7				
18-46-0	Moore	6484	bulk	18	17.0*	46	46.0				
11-53-0	Moore	6490	bulk	11	10.6	53	53.0				
18-46-0	Stanford	6494	bulk	18	17.1*	46	47.1				

MANUFACTURER/DISTRIBUTOR BRAND/PRODUCT NAME	PLACE OF COLLECTION	SAMPLE NUMBER	BAG/ BULK	NITROGEN C	 F	P_2O_5 C	 F	K_2O C	 F	MICRONUTRIENT C	 F
BEKER INDUSTRIES CORP. (continued)											
18-46-0	Ronan	6517	bulk	18	17.6	46	46.8				
18-46-0	Cut Bank	6534	bulk	18	17.4	46	46.9				
11-53-0	Cut Bank	6542	bulk	11	10.7	53	53.1				
11-53-0	Fort Benton	6554	bulk	11	10.5	53	53.3				
BIG HORN AGRI SERVICES Box 390 Hardin, MT 59034											
18-46-0	Hardin	6237	bulk	18	18.1	46	47.5				
CARGILL Fairgrounds Road Lewistown, MT 59457											
8-41-15	Lewistown	6406	bulk	8	8.3	41	41.4	15	15.5		
CENEX S.S.C. Box 1322 Billings, MT 59101											
18-46-0	Columbus	6048	bulk	18	18.3	46	48.8				
0-45-0	Columbus	6049	bulk			45	46.4				
34-0-0	Columbus	6050	bulk	34	34.3						
11-51-0	Columbus	6051	bulk	11	10.7	51	51.5				
16-20-0	Columbus	6052	bulk	16	15.9	20	21.2				
0-0-60	Columbus	6053	bulk					60	62.0		
46-0-0	Cut Bank	6543	bulk	46	46.2						
18-46-0	Rudyard	6551	bulk	18	18.1	46	46.8				
46-0-0	Denton	6479	bulk	46	46.0						
CHEVRON CHEMICAL COMPANY 940 Hensley Richmond, CA 94804											
34-0-0	Belgrade	5922	bulk	34	34.3						
34-0-0	Shelby	6000	bulk	34	33.8						
34-0-0	Deer Lodge	6043	bulk	34	34.1						
27-12-0	Deer Lodge	6044	bulk	27	26.3	12	12.8				
34-0-0	Dillon	6058	bulk	34	34.1						
16-20-0	Dillon	6062	bulk	16	15.9	20	21.9				
34-0-0	Dillon	6063	bulk	34	34.1						
34-0-0	Lewistown	6076	bulk	34	33.9						
34-0-0	Harlowton	6127	bulk	34	34.1						
34-0-0	Stevensville	6156	bulk	34	33.9						
27-12-0	Stevensville	6157	bulk	27	26.5	12	13.1				
27-12-0	Hamilton	6164	bulk	27	26.4	12	13.4				
34-0-0	Hamilton	6165	bulk	34	34.0						
34-0-0	Hamilton	6166	bulk	34	34.2						
16-16-16	Ronan	6219	bulk	16	15.9	16	17.3	16	15.9		

MANUFACTURER/DISTRIBUTOR BRAND/PRODUCT NAME	PLACE OF COLLECTION	SAMPLE NUMBER	BAG/ BULK	NITROGEN C	 F	P_2O_5 C	 F	K_2O C	 F	MICRONUTRIENT	C	F
CHEVRON CHEMICAL COMPANY (continued)												
34-0-0	Ronan	6220	bulk	34	34.2							
34-0-0	Hardin	6244	bulk	34	34.3							
34-0-0	Kalispell	6260	bulk	34	34.1							
30-0-0	Kalispell	6262	bulk	30	29.5					Sulfur	6.5	7.2
32-0-0	Belgrade	6335	bulk	32	31.2							
34-0-0	Conrad	6379	bulk	34	34.3							
34-0-0	Highwood	6387	bulk	34	34.3							
34-0-0	Harlowton	6407	bulk	34	34.2							
34-0-0	Ryegate	6411	bulk	34	34.0							
34-0-0	Dillon	6444	bulk	34	34.4							
16-20-0	Dillon	6445	bulk	16	16.1	20	19.9					
34-0-0	Three Forks	6449	bulk	34	34.2							
30-0-0	Kalispell	6475	bulk	30	29.5					Sulfur	6.5	7.1
30-0-0	Kalispell	6478	bulk	30	29.2					Sulfur	6.5	7.1
34-0-0	Moore	6486	bulk	34	34.0							
34-0-0	Ronan	6514	bulk	34	34.2							
16-16-16	Ronan	6515	bulk	16	15.9	16	15.9	16	16.3			
COMINCO AMERICAN INCORPORATED Box 3087, W 818 Riverside Spokane, WA 99220												
46-0-0	Belgrade	5928	bulk	46	46.3							
18-46-0	Belgrade	5929	bulk	18	18.0	46	47.8					
16-20-0	Belgrade	5931	bulk	16	16.3	20.	20.3			Sulfur	14	15.6
16-20-0	Belgrade	5932	bulk	16	16.2	20	20.3					
21-0-0	Three Forks	5992	bulk	21	21.0							
16-20-0	Shelby	5998	bulk	16	16.1	20	20.3					
18-46-0	Shelby	5999	bulk	18	18.5	46	46.2					
11-55-0	Shelby	6001	bulk	11	11.3	55	55.3					
0-0-60	Shelby	6002	bulk					60	60.0			
18-46-0	Laurel	6047	bulk	18	18.5	46	47.1					
0-0-60	Lewistown	6075	bulk					60	62.7			
0-0-60	Dillon	6065	bulk					60	61.3			
11-55-0	Lewistown	6084	bulk	11	11.4	55	56.3					
46-0-0	Lewistown	6085	bulk	46	45.9							
18-46-0	Lewistown	6086	bulk	18	18.1	46	47.5					
0-0-60	Stanford	6093	bulk					60	60.5			
11-55-0	Stanford	6094	bulk	11	11.3	55	55.9					
18-46-0	Stanford	6095	bulk	18	18.0	46	46.8					
46-0-0	Stanford	6096	bulk	46	46.2							
11-55-0	Denton	6098	bulk	11	11.4	55	56.4					
46-0-0	Denton	6099	bulk	46	46.1							
0-0-60	Denton	6100	bulk					60	62.5			
21-0-0	Denton	6101	bulk	21	20.9					Sulfur	24	24.6
0-0-60	Laurel	6108	bulk					60	60.9			
46-0-0	Laurel	6116	bulk	46	45.9							

MANUFACTURER/DISTRIBUTOR BRAND/PRODUCT NAME	PLACE OF COLLECTION	SAMPLE NUMBER	BAG/ BULK	NITROGEN C	NITROGEN F	P_2O_5 C	P_2O_5 F	K_2O C	K_2O F	MICRONUTRIENT	MICRONUTRIENT C	MICRONUTRIENT F
COMINCO AMERICAN INCORPORATED (continued)												
16-20-0	Laurel	6117	bulk	16	16.8	20	20.9					
11-55-0	Laurel	6118	bulk	11	11.3	55	56.0					
0-0-60	Harlowton	6128	bulk					60	60.4			
0-0-60	Ryegate	6140	bulk					60	61.6			
21-0-0	Stevensville	6161	bulk	21	20.9							
16-20-0	Hamilton	6167	bulk	16	16.6	20	21.9					
0-0-60	Hamilton	6168	bulk					60	61.3			
46-0-0	Belgrade	6171	bulk	46	46.3							
11-55-0	Belgrade	6175	bulk	11	11.1	55	56.1					
46-0-0	Billings	6187	bulk	46	45.9							
46-0-0	Geraldine	6202	bulk	46	46.0							
16-20-0	Ronan	6218	bulk	16	16.2	20	21.2					
0-0-60	Ronan	6221	bulk					60	60.6			
21-0-0	Ronan	6222	bulk	21	21.0							
11-55-0	Ronan	6223	bulk	11	11.3	55	55.3					
21-0-0	Ronan	6228	bulk	21	20.9							
11-55-0	Hardin	6238	bulk	11	11.1	55	56.4					
11-55-0	Kalispell	6261	bulk	11	11.2	55	56.2					
16-20-0	Kalispell	6263	bulk	16	16.1	20	21.3					
0-0-60	Kalispell	6264	bulk					60	60.1	Sulfur	14	15.1
21-0-0	Harlem	6289	bulk	21	21.1					Sulfur	24	24.7
46-0-0	Laurel	6328	bulk	46	45.9							
46-0-0	Havre	6355	bulk	46	46.0							
11-55-0	Wilsall	6360	bulk	11	11.4	55	56.3					
46-0-0	Wilsall	6361	bulk	46	45.8							
46-0-0	Conrad	6377	bulk	46	46.0							
11-55-0	Conrad	6378	bulk	11	11.0	55	56.3					
16-20-0	Conrad	6380	bulk	16	16.5	20	21.3					
0-0-60	Conrad	6381	bulk					60	62.2			
46-0-0	Highwood	6388	bulk	46	46.1							
0-0-61	Lewistown	6402	bulk					61	62.8			
34-0-0	Lewistown	6404	bulk	34	33.9							
11-55-0	Lewistown	6405	bulk	11	11.1	55	55.3					
0-0-60	Harlowton	6408	bulk					60	62.7			
46-0-0	Lewistown	6418	bulk	46	46.0							
11-55-0	Lewistown	6421	bulk	11	11.5	55	56.2					
46-0-0	Lewistown	6422	bulk	46	46.3							
18-46-0	Lewistown	6423	bulk	18	18.1	46	46.8					
11-55-0	Geraldine	6425	bulk	11	11.2	55	55.3					
46-0-0	Geraldine	6426	bulk	46	46.1							
0-0-60	Dillon	6446	bulk					60	60.5			
28-0-0	Three Forks	6455	bulk	28	28.6							
21-0-0	Fairfield	6469	bulk	21	21.1							
11-55-0	Kalispell	6476	bulk	11	11.3	55	55.3					
21-0-0	Moore	6487	bulk	21	20.9					Sulfur	24	24.5

MANUFACTURER/DISTRIBUTOR BRAND/PRODUCT NAME	PLACE OF COLLECTION	SAMPLE NUMBER	BAG/ BULK	NITROGEN C	 F	P_2O_5 C	 F	K_2O C	 F	MICRONUTRIENT 	C	F
COMINCO AMERICAN INCORPORATED (continued)												
46-0-0	Stanford	6492	bulk	46	46.2							
11-55-0	Stanford	6493	bulk	11	11.2	55	55.9					
18-46-0	Denton	6497	bulk	18	17.3	46	46.6					
11-55-0	Denton	6498	bulk	11	11.2	55	56.2					
46-0-0	Denton	6499	bulk	46	46.0							
0-0-60	Denton	6500	bulk					60	59.7			
0-0-60	Ronan	6516	bulk					60	60.6			
11-55-0	Shelby	6530	bulk	11	11.3	55	55.5					
16-20-0	Shelby	6531	bulk	16	16.3	20	20.6					
46-0-0	Shelby	6532	bulk	46	46.1							
0-0-60	Shelby	6533	bulk					60	59.5			
46-0-0	Cut Bank	6540	bulk	46	45.9							
CONAGRA, INC. Box 112 Belgrade, MT 59714												
Blend 17-13.5-8.5	Deer Lodge	6045	bulk	17	17.1	13.5	13.5	8.5	12.8	Sulfur	[illegible]	[illegible]
30-10-0	Laurel	6046	bulk	30	29.6	10	10.1					
12-28-11	Wilsall	6362	bulk	12	10.6*	28	28.1	11	15.6	Sulfur	7	[illegible]
13-40-0	Wilsall	6363	bulk	13	13.7	40	36.5*			Sulfur	7	[illegible]
CONAGRA, INC. 1420 Minnesota Avenue Billings, MT 59101												
0-0-60	Red Lodge	6039	bulk					60	61.8			
18-46-0	Red Lodge	6040	bulk	18	17.9	46	48.1					
11-51-0	Red Lodge	6041	bulk	11	11.6	51	51.8					
34-0-0	Red Lodge	6042	bulk	34	33.9							
CONAGRA, INC. Cut Bank, MT 59427												
46-0-0	Kalispell	6280	bulk	46	45.1							
11-53-0	Kalispell	6281	bulk	11	10.6	53	54.8					
16-20-0	Kalispell	6283	bulk	16	15.9	20	21.8					
46-0-0	Kalispell	6505	bulk	46	45.2							
11-53-0	Kalispell	6506	bulk	11	10.7	53	53.9					
16-20-0	Kalispell	6508	bulk	16	16.1	20	21.9					
CONAGRA, INC. Box 218 Fairfield, MT 59436												
0-0-60	Fairfield	6151	bulk					60	61.[illegible]			
CONAGRA, INC. P. O. Box 2548 Great Falls, MT 59403												
0-0-60	Hardin	6245	bulk					60	[illegible]			

MANUFACTURER/DISTRIBUTOR BRAND/PRODUCT NAME	PLACE OF COLLECTION	SAMPLE NUMBER	BAG/ BULK	NITROGEN C	NITROGEN F	P_2O_5 C	P_2O_5 F	K_2O C	K_2O F	MICRONUTRIENT	MICRONUTRIENT C	MICRONUTRIENT F
CONAGRA, INC. GREAT FALLS (continued)												
46-0-0	Hingham	6559	bulk	46	46.4							
CONAGRA, INC. Box 571 Havre, MT 59501												
46-0-0	Havre	6015	bulk	46	46.0							
46-0-0	Hingham	6026	bulk	46	45.8							
11-51-0	Himgham	6027	bulk	11	11.3	51	52.1					
CONAGRA, INC. Ryegate, MT 59074												
0-0-60	Ryegate	6415	bulk					60	60.7			
CONDA Soda Springs, ID 83276												
18-46-0	Fairfield	6471	bulk	18	18.1	46	46.9					
DUVAL CORPORATION Pennzoil Place Houston, TX 77001												
	Billings	6198	bag							Sulfur Iron	30 16	28.1* 15.2
EQUITY SUPPLY COMPANY 150 1st Ave. NW 6th Ave. West & Center Kalispell, MT 59901												
34-0-0	Kalispell	6477	bulk	34	34.2							
EXXON CHEMICAL AMERICAS Box 3272 Houston, TX 77001												
11-51-0	Miles City	5916	bulk	11	11.7	51	51.5					
18-46-0	Belgrade	5925	bulk	18	17.8	46	46.9					
16-20-0	Belgrade	5926	bulk	16	16.2	20	22.6			Sulfur	14	13.5*
11-51-0	Belgrade	5927	bulk	11	11.5	51	50.6					
11-51-0	Great Falls	5950	bulk	11	11.5	51	50.7					
34-0-0	Great Falls	5951	bulk	34	34.0							
18-46-0	Great Falls	5952	bulk	18	17.9	46	47.2					
11-51-0	Wolf Point	5958	bulk	11	11.5	51	51.0					
46-0-0	Wolf Point	5959	bulk	46	45.9							
11-51-0	Reserve	5969	bulk	11	11.3	51	51.0					
18-46-0	Reserve	5970	bulk	18	17.9	46	46.7					
16-20-0	Reserve	5971	bulk	16	15.9	20	25.4					
34-0-0	Saco	5981	bulk	34	34.0							
34-0-0	Havre	6020	bulk	34	34.0							

MANUFACTURER/DISTRIBUTOR BRAND/PRODUCT NAME	PLACE OF COLLECTION	SAMPLE NUMBER	BAG/ BULK	NITROGEN C	NITROGEN F	P_2O_5 C	P_2O_5 F	K_2O C	K_2O F	MICRONUTRIENT	MICRONUTRIENT C	MICRONUTRIENT F
EXXON CHEMICAL AMERICAS (continued)												
11-51-0	Havre	6023	bulk	11	11.3	51	51.1			Sulfur	2.5	1.7*
18-46-0	Lewistown	6082	bulk	18	17.6	46	46.2					
11-51-0	Lewistown	6083	bulk	11	11.4	51	52.3					
34-0-0	Billings	6110	bulk	34	34.2							
18-46-0	Billings	6111	bulk	18	17.8	46	48.0					
16-20-0	Billings	6113	bulk	16	16.2	20	21.6					
11-51-0	Moore	6119	bulk	11	11.3	51	51.8					
18-46-0	Moore	6120	bulk	18	17.2*	46	47.2					
34-0-0	Moore	6134	bulk	34	33.9							
11-51-0	Ryegate	6139	bulk	11	11.5	51	52.0					
18-46-0	Ryegate	6141	bulk	18	17.9	46	46.6					
34-0-0	Fairfield	6152	bulk	34	34.4							
11-51-0	Fairfield	6153	bulk	11	11.5	51	52.1					
18-46-0	Fairfield	6154	bulk	18	17.7	46	47.4					
34-0-0	Stevensville	6162	bulk	34	34.0							
11-51-0	Billings	6195	bag	11	11.6	51	52.6					
16-20-0	Billings	6196	bag	16	16.2	20	22.6					
34-0-0	Billings	6197	bag	34	34.1							
18-46-0	Hardin	6241	bulk	18	17.6	46	48.3					
34-0-0	Hardin	6243	bulk	34	34.4							
18-46-0	Harlem	6288	bulk	18	17.7	46	46.4					
18-46-0	Wolf Point	6301	bulk	18	17.6	46	45.8					
11-53-0	Wolf Point	6302	bulk	11	10.8	53	53.1					
18-46-0	Billings	6311	bulk	18	17.7	46	48.0					
16-20-0	Billings	6315	bulk	16	15.9	20	20.9					
34-0-0	Billings	6318	bulk	34	34.1							
18-46-0	Billings	6324	bulk	18	17.9	46	47.6					
16-20-0	Belgrade	6333	bulk	16	16.0	20	20.8			Sulfur	14	14.4
34-0-0	Belgrade	6334	bulk	34	34.3							
18-46-0	Moore	6491	bulk	18	17.9	46	47.4					
18-46-0	Sidney	6526	bulk	18	17.8	46	47.7					
18-46-0	Cut Bank	6541	bulk	18	17.8	46	47.6					
FARMERS UNION CENTRAL EXCHANGE Box 43089 St. Paul, MN 55164												
46-0-0	Miles City	5917	bulk	46	46.0							
18-46-0	Miles City	5918	bulk	18	18.0	46	48.0					
0-0-60	Terry	5919	bulk					60	60.3			
21-0-0	Terry	5920	bulk	21	20.9							
18-46-0	Terry	5921	bulk	18	17.3	46	47.0					
11-51-0	Conrad	5937	bulk	11	10.6	51	49.6*					
18-46-0	Conrad	5938	bulk	18	18.4	46	46.6					
34-0-0	Conrad	5939	bulk	34	34.6							
34-0-0	Great Falls	5944	bulk	34	34.1							
16-20-0	Great Falls	5947	bulk	16	15.9	20	20.0					

MANUFACTURER/DISTRIBUTOR BRAND/PRODUCT NAME	PLACE OF COLLECTION	SAMPLE NUMBER	BAG/ BULK	NITROGEN C	NITROGEN F	P_2O_5 C	P_2O_5 F	K_2O C	K_2O F	MICRONUTRIENT	MICRONUTRIENT C	MICRONUTRIENT F
FARMERS UNION CENTRAL EXCHANGE (continued)												
11-53-0	Black Eagle	5945	bulk	11	14.9	53	48.0*					
18-46-0	Great Falls	5946	bulk	18	17.5	46	45.8					
11-51-0	Wolf Point	5955	bulk	11	10.9	51	50.3					
18-46-0	Wolf Point	5956	bulk	18	17.9	46	47.6					
46-0-0	Glasgow	5962	bulk	46	46.2							
0-44-0	Glasgow	5963	bulk			44	45.0					
18-46-0	Glasgow	5964	bulk	18	17.8	46	46.9					
21-0-0-24	Glasgow	5965	bulk	21	20.9					Sulfur	24	24.9
46-0-0	Plentywood	5966	bulk	46	46.7							
11-51-0	Plentywood	5967	bulk	11	10.7	51	51.1					
18-46-0	Plentywood	5968	bulk	18	17.9	46	46.3					
18-46-0	Lambert	5972	bulk	18	17.7	46	46.9					
21-0-0	Lambert	5973	bulk	21	20.9							
11-51-0	Lambert	5974	bulk	11	10.7	51	51.1					
46-0-0	Froid	5975	bulk	46	46.1							
18-46-0	Froid	5976	bulk	18	17.3	46	45.7					
11-51-0	Scobey	5977	bulk	11	10.7	51	51.2					
18-46-0	Scobey	5978	bulk	18	17.8	46	47.6					
18-46-0	Scobey	5979	bulk	18	17.5	46	46.4					
46-0-0	Scobey	5980	bulk	46	45.9							
18-46-0	Three Forks	5982	bulk	18	17.7	46	45.9					
16-20-0	Three Forks	5983	bulk	16	16.0	20	20.0					
0-44-0	Belgrade	5984	bulk			44	44.3					
21-0-0	Belgrade	5985	bulk	21	20.8							
16-20-0	Belgrade	5986	bulk	16	15.8	20	20.0					
0-0-60	Belgrade	5987	bulk					60	60.7			
18-46-0	Belgrade	5988	bulk	18	17.2*	46	46.0					
11-51-0	Belgrade	5989	bulk	11	10.7	51	51.4					
46-0-0	Belgrade	5990	bulk	46	46.0							
34-0-0	Three Forks	5991	bulk	34	34.0							
0-0-60	Three Forks	5993	bulk					60	61.1			
11-51-0	Three Forks	5994	bulk	11	10.7	51	49.6*					
18-46-0	Chester	6003	bulk	18	17.6	46	46.1					
46-0-0	Chester	6004	bulk	46	46.3							
18-46-0	Chester	6005	bulk	18	17.3	46	45.7					
0-0-60	Chester	6006	bulk					60	59.8			
11-51-0	Chester	6007	bulk	11	10.7	51	50.9					
11-51-0	Chester	6010	bulk	11	10.6	51	51.1					
46-0-0	Chinook	6008	bulk	46	46.3							
0-44-0	Chinook	6009	bulk			44	45.0					
18-46-0	Chinook	6013	bulk	18	17.9	46	47.4					
46-0-0	Rudyard	6011	bulk	46	46.2							
11-51-0	Rudyard	6012	bulk	11	10.6	51	51.3					
18-46-0	Havre	6016	bulk	18	17.8	46	46.9					
11-51-0	Havre	6017	bulk	11	10.9	51	50.9					
21-0-0	Havre	6018	bulk	21	20.9							

MANUFACTURER/DISTRIBUTOR BRAND/PRODUCT NAME	PLACE OF COLLECTION	SAMPLE NUMBER	BAG/ BULK	NITROGEN C	NITROGEN F	P_2O_5 C	P_2O_5 F	K_2O C	K_2O F	MICRONUTRIENT	MICRONUTRIENT C	MICRONUTRIENT F
FARMERS UNION CENTRAL EXCHANGE (continued)												
11-51-0	Townsend	6032	bulk	11-	10.8	51	51.8					
18-46-0	Savage	6066	bulk	18	17.3	46	46.6					
11-51-0	Savage	6067	bulk	11	10.3*	51	50.5					
34-0-0	Savage	6068	bulk	34	34.2							
18-46-0	Miles City	6069	bulk	18	17.9	46	46.6					
46-0-0	Miles City	6070	bulk	46	46.0							
34-0-0	Stanford	6087	bulk	34	34.2							
34-0-0	Stanford	6088	bulk	34	34.3							
18-46-0	Stanford	6089	bulk	18	17.9	46	47.5					
11-51-0	Stanford	6090	bulk	11	10.7	51	51.6					
	Stanford	6091	bulk							Sulfur	90	98.7
0-0-60	Stanford	6092	bulk					60	62.3			
46-0-0	Denton	6102	bulk	46	45.9							
18-46-0	Denton	6103	bulk	18	18.3	46	47.5					
18-46-0	Denton	6104	bulk	18	17.8	46	48.0					
11-51-0	Denton	6105	bulk	11	10.9	51	51.1					
11-51-0	Moore	6121	bulk	11	11.1	51	51.4					
18-46-0	Moore	6122	bulk	18	18.1	46	47.9					
21-0-0	Moore	6123	bulk	21	21.0					Sulfur	24	24.7
46-0-0	Moore	6124	bulk	46	46.1							
0-0-60	Moore	6125	bulk					60	60.2			
46-0-0	Moore	6126	bulk	46	46.1							
0-0-60	Lewistown	6132	bulk					60	61.4			
0-44-0	Lewistown	6135	bulk			44	44.5					
11-51-0	Lewistown	6136	bulk	11	10.5	51	51.8					
46-0-0	Lewistown	6137	bulk	46	45.3							
18-46-0	Lewistown	6138	bulk	18	17.7	46	47.7					
18-46-0	Broadview	6143	bulk	18	17.6	46	46.7					
11-51-0	Broadview	6144	bulk	11	10.7	51	51.2					
46-0-0	Broadview	6145	bulk	46	46.1							
18-46-0	Fairfield	6147	bulk	18	17.9	46	47.4					
11-51-0	Fairfield	6148	bulk	11	10.9	51	51.9					
21-0-0	Fairfield	6149	bulk	21	20.9							
34-0-0	Fairfield	6150	bulk	34	34.3							
16-20-0	Stevensville	6159	bulk	16	15.8	20	21.4					
18-46-0	Froid	6182	bulk	18	17.4	46	47.3					
34-0-0	Billings	6189	bulk	34	34.2							
11-51-0	Billings	6190	bulk	11	10.9	51	51.6					
0-0-60	Billings	6193	bulk					60	62.9			
18-46-0	Geraldine	6202	bulk	18	17.4	46	46.8					
0-0-60	Geraldine	6207	bulk					60	61.0			
11-51-0	Geraldine	6208	bulk	11	10.7	51	48.6*					
34-0-0	Geraldine	6209	bulk	34	34.2							
0-0-62	Fort Benton	6210	bulk					62	63.2			
46-0-0	Fort Benton	6211	bulk	46	45.9							
11-53-0	Fort Benton	6212	bulk	11	10.9	53	53.2					

MANUFACTURER/DISTRIBUTOR BRAND/PRODUCT NAME	PLACE OF COLLECTION	SAMPLE NUMBER	BAG/ BULK	NITROGEN C	NITROGEN F	P_2O_5 C	P_2O_5 F	K_2O C	K_2O F	MICRONUTRIENT	MICRONUTRIENT C	MICRONUTRIENT F
FARMERS UNION CENTRAL EXCHANGE (continued)												
18-46-0	Ronan	6224	bulk	18	17.4	46	46.0					
16-20-0	Ronan	6225	bulk	16	15.9	20	20.9					
0-0-60	Ronan	6226	bulk					60	60.7			
0-44-0	Ronan	6227	bulk			44	45.8					
46-0-0	Ronan	6229	bulk	46	46.0							
46-0-0	Hardin	6230	bulk	46	46.2							
18-46-0	Hardin	6231	bulk	18	18.3	46	45.3					
0-44-0	Hardin	6233	bulk			44	44.1					
0-0-60	Hardin	6234	bulk					60	59.9			
11-51-0	Hardin	6235	bulk	11	10.9	51	50.4					
34-0-0	Kalispell	6274	bulk	34	34.1							
21-0-0	Kalispell	6275	bulk	21	20.9					Sulfur	24	24.8
16-20-0	Kalispell	6276	bulk	16	13.4*	20	35.8			Sulfur	14	8.9*
11-51-0	Kalispell	6277	bulk	11	10.8	51	54.6					
18-46-0	Kalispell	6278	bulk	18	18.0	46	50.7					
0-0-60	Kalispell	6279	bulk					60	61.7			
0-0-60	Harlem	6287	bulk					60	62.2			
46-0-0	Harlem	6298	bulk	46	46.5							
18-46-0	Chinook	6291	bulk	18	17.6	46	46.9					
0-0-60	Chinook	6292	bulk					60	63.4			
46-0-0	Chinook	6293	bulk	46	46.3							
11-51-0	Chinook	6294	bulk	11	10.7	51	51.6					
18-46-0	Circle	6296	bulk	18	18.2	46	46.5					
46-0-0	Circle	6297	bulk	46	46.4							
11-51-0	Circle	6298	bulk	11	10.7	51	51.7					
46-0-0	Baker	6299	bulk	46	46.4							
18-46-0	Baker	6300	bulk	18	18.1	46	47.8					
34-0-0	Billings	6310	bulk	34	34.1							
18-46-0	Billings	6312	bulk	18	17.4	46	48.0					
46-0-0	Belgrade	6336	bulk	46	46.0							
11-51-0	Belgrade	6337	bulk	11	10.7	51	52.2					
18-46-0	Belgrade	6338	bulk	18	17.9	46	47.4					
0-0-60	Belgrade	6339	bulk					60	61.2			
16-20-0	Belgrade	6340	bulk	16	15.9	20	20.2					
21-0-0	Belgrade	6341	bulk	21	20.9							
16-20-0	Big Sandy	6345	bulk	16	15.9	20	21.3			Sulfur	15	15.5
46-0-0	Big Sandy	6346	bulk	46	46.0							
18-46-0	Big Sandy	6347	bulk	18	17.9	46	46.7					
46-0-0	Big Sandy	6348	bulk	46	46.0							
0-0-60	Big Sandy	6349	bulk					60	61.7			
16-20-0	Conrad	6371	bulk	16	15.9	20	21.0			Sulfur	14	15.5
34-0-0	Conrad	6373	bulk	34	34.2							
0-44-0	Lewistown	6391	bulk			44	46.5					
34-0-0	Lewistown	6393	bulk	34	34.5							
18-46-0	Lewistown	6394	bulk	18	17.6	46	47.9					
0-0-60	Lewistown	6395	bulk					60	63.2			

MANUFACTURER/DISTRIBUTOR BRAND/PRODUCT NAME	PLACE OF COLLECTION	SAMPLE NUMBER	BAG/ BULK	NITROGEN C	NITROGEN F	P_2O_5 C	P_2O_5 F	K_2O C	K_2O F	MICRONUTRIENT	MICRONUTRIENT C	MICRONUTRIENT F
FARMERS UNION CENTRAL EXCHANGE (continued)												
0-44-0	Lewistown	6396	bulk			44	44.0					
11-51-0	Lewistown	6397	bulk	11	10.4	51	52.0					
11-51-0	Lewistown	6398	bulk	11	11.1	51	51.0					
46-0-0	Lewistown	6399	bulk	46	46.2							
18-46-0	Lewistown	6400	bulk	18	17.7	46	46.4					
0-0-60	Lewistown	6401	bulk					60	61.2			
34-0-0	Geraldine	6427	bulk	34	34.2							
0-0-60	Geraldine	6428	bulk					60	61.5			
18-46-0	Geraldine	6429	bulk	18	17.7	46	46.8					
21-0-0	Geraldine	6430	bulk	21	21.0							
11-51-0	Geraldine	6431	bulk	11	10.9	51	51.5					
0-0-63	Three Forks	6450	bulk					63	63.4			
16-20-0	Three Forks	6452	bulk	16	16.0	20	21.3			Sulfur	14	15.2
0-0-60	Great Falls	6462	bulk					60	62.1			
16-20-0	Great Falls	6463	bulk	16	15.8	20	21.3					
34-0-0	Great Falls	6464	bulk	34	34.1							
0-0-60	Kalispell	6472	bulk					60	61.8			
16-20-0	Kalispell	6473	bulk	16	16.2	20	21.6			Sulfur	14	15.1
16-20-0	Kalispell	6474	bulk	16	16.4	20	20.4			Sulfur	14	15.4
46-0-0	Moore	6488	bulk	46	45.9							
0-0-60	Moore	6489	bulk					60	61.6			
34-0-0	Stanford	6495	bulk	34	34.4							
18-46-0	Stanford	6496	bulk	18	17.2*	46	47.0					
11-51-0	Denton	6501	bulk	11	11.3	51	51.7					
0-0-60	Denton	6504	bulk					60	61.4			
0-44-0	Worden	6509	bulk			44	45.0					
0-0-60	Worden	6510	bulk					60	60.0			
18-46-0	Worden	6511	bulk	18	16.9*	46	46.3					
46-0-0	Worden	6512	bulk	46	46.3							
	Worden	6513	bulk							Zinc	18	18.1
18-46-0	Terry	6522	bulk	18	18.0	46	48.3					
0-44-0	Terry	6523	bulk			44	45.3					
0-0-60	Terry	6524	bulk					60	60.1			
34-0-0	Terry	6525	bulk	34	34.5							
0-0-60	Cut Bank	6535	bulk					60	59.6			
11-51-0	Cut Bank	6545	bulk	11	10.9	51	53.0					
0-0-60	Rudyard	6546	bulk					60	61.4			
16-20-0	Rudyard	6547	bulk	16	16.0	20	21.1			Sulfur	14	13.3
46-0-0	Rudyard	6548	bulk	46	46.3							
21-0-0	Rudyard	6549	bulk	21	21.1					Sulfur	24	24.9
11-51-0	Rudyard	6550	bulk	11	10.8	51	52.0					
46-0-0	Fort Benton	6552	bulk	46	46.4							
0-0-62	Fort Benton	6553	bulk					62	62.1			
18-46-0	Chester	6555	bulk	18	17.9	46	47.4					
11-51-0	Chester	6557	bulk	11	11.0	51	51.3					
46-0-0	Chester	6558	bulk	46	46.5							

MANUFACTURER/DISTRIBUTOR BRAND/PRODUCT NAME	PLACE OF COLLECTION	SAMPLE NUMBER	BAG/ BULK	NITROGEN C	 F	P_2O_5 C	 F	K_2O C	 F	MICRONUTRIENT	C	F
FERTI-CHEM												
Townsend, MT 59744												
18.0-3.0-3.0	Rapelje	6358	bulk	18	18.1	3	3.1	3	2.4	Sulfur	3	3.2
										Boron	1	0.1*
12.0-2.0-2.0	Rapelje	6359	bulk	12	14.9	2	2.8	2	2.4	Sulfur	2	2.8
										Boron	.67	.1*
GALLATIN FARMERS COMPANY												
Box 129												
Belgrade, MT 59714												
21-0-0	Three Forks	6454	bulk	21	21.0					Sulfur	24	24.8
GENERAL MILLS												
Fort Benton, MT 59442												
0-45-0	Fort Benton	6433	bulk			45	45.3					
46-0-0	Fort Benton	6434	bulk	46	46.2							
GREAT PLAINS CROP MANAGEMENT												
Box 115												
Geraldine, MT 59446												
20-0-0	Geraldine	6201	bulk	20	21.9					Sulfur	3	4.3
15.5-7.5-3.4	Choteau	6295	bulk	15.5	14.9	7.5	4.4*	3.4	3.1	Sulfur	3.4	1.8*
HI-LINE FERTILIZER, INC.												
Box 228												
Hingham, MT 59528												
10-34-0	Hingham	6025	bulk	10	9.8	34	35.2					
0-0-60	Kalispell	6507	bulk					60	61.3			
32-0-0	Hingham	6562	bulk	32	31.4							
10-34-0	Hingham	6563	bulk	10	10.2	34	34.2					
INTERNATIONAL MINERALS & CHEMICAL CORPORATION												
Box 207												
Terre Haute, IN 47808												
0-0-60	Belgrade	5924	bulk					60	61.1			
0-0-60	Moore	6485	bulk					60	61.2			
DICK IRVIN TRUCKING												
P. O. Box F												
Shelby, MT 59474												
11-55-0	Lewistown	6390	bulk	11	11.2	55	55.3					
KALIUM CHEMICAL												
4 Executive Park Drive, Box 95666												
Atlanta, GA 30347												
0-0-60	Great Falls	5949	bulk					60	60.7			
0-0-60	Lewistown	6081	bulk					60	62.8			

MANUFACTURER/DISTRIBUTOR BRAND/PRODUCT NAME	PLACE OF COLLECTION	SAMPLE NUMBER	BAG/ BULK	NITROGEN C	NITROGEN F	P_2O_5 C	P_2O_5 F	K_2O C	K_2O F	MICRONUTRIENT	MICRONUTRIENT C	MICRONUTRIENT F
KALIUM CHEMICAL (continued)												
0-0-60	Denton	6106	bulk					60	62.7			
0-0-60	Billings	6114	bulk					60	62.5			
0-0-60	Moore	6133	bulk					60	61.9			
0-0-60	Broadview	6146	bulk					60	62.7			
0-0-60	Geraldine	6204	bulk					60	60.4			
0-0-62	Geraldine	6205	bulk					62	62.9			
0-0-60	Kalispell	6282	bulk					60	62.6			
0-0-60	Billings	6313	bulk					60	62.1			
0-0-60	Billings	6314	bulk					60	62.0			
0-0-60	Belgrade	6332	bulk					60	62.9			
0-0-62	Big Sandy	6344	bulk					62	62.4			
0-0-62	Havre	6356	bulk					62	63.1			
0-0-62	Power	6382	bulk					62	63.4			
0-0-60	Lewistown	6420	bulk					60	61.3			
0-0-60	Geraldine	6424	bulk					60	61.9			
0-0-60	Great Falls	6461	bulk					60	60.4			
0-0-62	Fairfield	6467	bulk					62	62.4			
0-0-60	Cut Bank	6537	bulk					60	59.6			
0-0-60	Hingham	6561	bulk					60	60.9			
KERNAGHAN'S Carter, MT 59420												
18-46-0	Carter	6350	bulk	18	17.1*	46	46.4					
34-0-0	Carter	6351	bulk	34	34.1							
11-53-0	Carter	6352	bulk	11	10.6	53	54.3					
LEWISTOWN PROPANE COMPANY Box 1041 Denton, MT 59430												
18-46-0	Denton	6097	bulk	18	17.5	46	47.0					
MARTREX, INC. P. O. Box 1-G Minnetonka, MN 55343												
34-0-0	Conrad	5941	bulk	34	34.2							
16-20-0	Conrad	5942	bulk	16	16.2	20	20.0					
11-51-0	Havre	6014	bulk	11	10.7	51	51.8					
0-0-60	Bridger	6038	bulk					60	60.3			
MONTANA AGRI CHEMICALS, INC. Box 266 Belgrade, MT 59714												
9-30-0	Dillon	6055	bulk	9	8.7	30	30.0					
	Belgrade	6173	bulk							Sulfur	90	87.6
30-9-0	Belgrade	6174	bulk	30	24.1*	9	8.2					

MANUFACTURER/DISTRIBUTOR BRAND/PRODUCT NAME	PLACE OF COLLECTION	SAMPLE NUMBER	BAG/ BULK	NITROGEN C	NITROGEN F	P_2O_5 C	P_2O_5 F	K_2O C	K_2O F	MICRONUTRIENT	MICRONUTRIENT C	MICRONUTRIENT F
MONTANA SULPHUR & CHEMICAL CO. Box 31118 Billings, MT 59107												
.....	Hardin	6232	bulk							Sulfur	90	91.9
N & P FERTILIZER CO., INC. Route 1, Box 19 Townsend, MT 59644												
20-4-3.....	Townsend	6030	bulk	20	19.6	4	3.7	3	2.6	Sulfur	3	2.7
NORTH PACIFIC TRADING Box 3915 Portland, OR 97208												
.....	Cut Bank	6538	bulk							Sulfur	22	20.9*
PEAVEY COMPANY Box 126 Belgrade, MT 59714												
10-48-0.....	Belgrade	6170	bulk	10	10.2	48	47.4					
PHILLIPS CHEMICAL COMPANY Box 13349 Spokane, WA 99213												
32-0-0.....	Dillon	6056	bulk	32	32.2							
32-0-0.....	Great Falls	6306	bulk	32	31.7							
32-0-0.....	Conrad	6365	bulk	32	31.8							
POWER FARMERS ELEVATOR Box 215 Power, MT 59468												
21-0-0.....	Power	6383	bulk	21	20.9							
18-46-0.....	Power	6385	bulk	18	18.4	46	48.8					
J. R. SIMPLOT Box 912 Pocatello, ID 93204												
18-46-0.....	Miles City	5915	bulk	18	18.0	46	47.9					
11-52-0.....	Manhattan	5933	bulk	11	11.0	52	53.1					
34-0-0.....	Manhattan	5934	bulk	34	34.3							
0-45-0.....	Conrad	5940	bulk			45	45.2					
34-0-0.....	Carter	5953	bulk	34	34.1							
18-46-0.....	Glasgow	5960	bulk	18	18.1	46	46.1					
34-0-0.....	Glasgow	5961	bulk	34	34.1							
11-52-0.....	Fairview	5995	bulk	11	11.2	52	52.0					
18-46-0.....	Fairview	5996	bulk	18	17.7	46	46.0					
34-0-0.....	Fairview	5997	bulk	34	34.0							

MANUFACTURER/DISTRIBUTOR BRAND/PRODUCT NAME	PLACE OF COLLECTION	SAMPLE NUMBER	BAG/ BULK	NITROGEN C	NITROGEN F	P_2O_5 C	P_2O_5 F	K_2O C	K_2O F	MICRONUTRIENT	MICRONUTRIENT C	MICRONUTRIENT F
J. R. SIMPLOT (continued)												
18-46-0	Hingham	6028	bulk	18	17.9	46	46.7					
11-52-0	Hingham	6029	bulk	11	11.2	52	52.5					
21-0-0	Dillon	6054	bulk	21	20.8							
11-52-0	Dillon	6059	bulk	11	11.2	52	52.6					
0-45-0	Dillon	6060	bulk			45	46.2					
34-0-0	Dillon	6061	bulk	34	34.1							
34-0-0	Miles City	6071	bulk	34	34.0							
18-46-0	Miles City	6072	bulk	18	17.0*	46	45.6					
11-52-0	Lewistown	6077	bulk	11	11.3	52	53.1					
0-45-0	Harlowton	6131	bulk			45	45.4					
18-46-0	Stevensville	6155	bulk	18	18.1	46	48.0					
0-45-0	Stevensville	6158	bulk			45	46.6					
18-46-0	Stevensville	6160	bulk	18	18.0	46	48.0					
11-52-0	Hamilton	6169	bulk	11	11.3	52	53.0					
16-20-0	Belgrade	6172	bulk	16	15.9	20	22.9					
34-0-0	Billings	6183	bulk	34	34.4							
0-45-0	Billings	6184	bulk			45	46.3					
16-20-0	Billings	6185	bulk	16	16.1	20	20.3					
18-46-0	Billings	6186	bulk	18	18.1	46	46.6					
.....	Billings	6194	bulk							Zinc	18	18.0
10-34-0	Billings	6214	bulk	10	10.2	34	34.5					
16-20-0	Hardin	6240	bulk	16	15.9	20	21.8					
18-46-0	Hardin	6242	bulk	18	18.1	46	47.8					
0-45-0	Hardin	6246	bulk			45	46.0					
18-46-0	Fairview	6303	bulk	18	18.0	46	46.9					
16-20-0	Billings	6319	bulk	16	16.1	20	20.5					
18-46-0	Billings	6320	bulk	18	18.3	46	48.2					
34-0-0	Billings	6321	bulk	34	34.2							
18-46-0	Billings	6323	bulk	18	17.8	46	47.2					
0-0-60	Billings	6326	bulk			60	61.7					
10-34-0	Billings	6327	bulk	10	11.1	34	37.6					
18-46-0	Big Sandy	6343	bulk	18	17.9	46	47.3					
18-46-0	Conrad	6370	bulk	18	16.9*	46	46.8					
18-46-0	Conrad	6374	bulk	18	17.9	46	46.1					
16-20-0	Conrad	6375	bulk	16	15.9	20	21.6					
11-52-0	Conrad	6376	bulk	11	11.2	52	52.6					
16-20-0	Harlowton	6409	bulk	16	16.0	20	21.4					
18-46-0	Dillon	6436	bulk	18	18.0	46	47.1					
0-0-60	Dillon	6437	bulk					60	60.2			
16-20-0	Dillon	6438	bulk	16	16.1	20	21.7					
0-45-0	Dillon	6439	bulk			45	47.9					
11-52-0	Dillon	6440	bulk	11	10.7	52	52.0					
21-0-0	Dillon	6441	bulk	21	21.0							
34-0-0	Dillon	6442	bulk	34	34.4							
0-45-0	Dillon	6443	bulk			45	45.0					
11-52-0	Great Falls	6458	bulk	11	10.5	52	52.0					

MANUFACTURER/DISTRIBUTOR BRAND/PRODUCT NAME	PLACE OF COLLECTION	SAMPLE NUMBER	BAG/ BULK	NITROGEN C	NITROGEN F	P_2O_5 C	P_2O_5 F	K_2O C	K_2O F	MICRONUTRIENT	MICRONUTRIENT C	MICRONUTRIENT F
J. R. SIMPLOT (continued)												
18-46-0	Fairfield	6465	bulk	18	18.0	46	46.3					
11-52-0	Fairfield	6466	bulk	11	10.4	52	52.6					
21-0-0	Denton	6502	bulk	21	21.0					Sulfur	24	25.0
18-46-0	Denton	6503	bulk	18	17.9	46	48.4					
18-46-0	Hysham	6518	bulk	18	17.9	46	46.8					
34-0-0	Miles City	6519	bulk	34	34.4							
18-46-0	Miles City	6520	bulk	18	18.1	46	47.3					
11-52-0	Miles City	6521	bulk	11	11.0	52	53.1					
18-46-0	Sidney	6527	bulk	18	18.0	46	47.4					
11-52-0	Sidney	6528	bulk	11	11.9	52	51.3					
34-0-0	Sidney	6529	bulk	34	34.4							
11-52-0	Cut Bank	6539	bulk	11	10.8	52	53.4					
18-46-0	Cut Bank	6556	bulk	18	18.1	46	47.2					
11-51-0	Hingham	6560	bulk	11	11.1	51	52.9					
USS AGRI-CHEMICALS Div. of U. S. Steel Corp. 10 East S. Temple #1250 Salt Lake City, UT 84133												
34-0-0	Lewistown	6078	bulk	34	34.4							
34-0-0	Ryegate	6142	bulk	34	34.1							
34-0-0	Hardin	6239	bulk	34	34.3							
WESTERN CO-OP FERTILIZERS Box 2500 Calgary, ALBERTA												
34-0-0	Laurel	6109	bulk	34	34.2							
11-51-0	Havre	6353	bulk	11	11.0	51	53.4					
11-51-0	Geyser	6364	bulk	11	10.9	51	52.4					
16-20-0	Brady	6367	bulk	16	15.8	20	20.7					
34-0-0	Brady	6368	bulk	34	34.3							
11-51-0	Conrad	6369	bulk	11	11.1	51	52.2					
0-0-60	Conrad	6372	bulk					60	62.5			
34-0-0	Power	6386	bulk	34	34.2							
34-0-0	Great Falls	6460	bulk	34	34.3							
34-0-0	Fairfield	6468	bulk	34	34.3							
11-51-0	Fairfield	6470	bulk	11	11.2	51	51.9					
WESTWAY TRADING CORPORATION Box 821 Billings, MT 59103												
29-0-0	Billings	6213	bulk	29	28.5							
WILLIAMS FEED Box 831 Dillon, MT 59725												
15-15-15	Dillon	6057	bulk	15	18.5	15	11.6*	15	15.4	Sulfur	12	11.7

MANUFACTURER/DISTRIBUTOR BRAND/PRODUCT NAME	PLACE OF COLLECTION	SAMPLE NUMBER	BAG/ BULK	NITROGEN C	NITROGEN F	P_2O_5 C	P_2O_5 F	K_2O C	K_2O F	MICRONUTRIENT	MICRONUTRIENT C	MICRONUTRIENT F
WYCON CHEMICALS COMPANY Box 1287 Cheyenne, WY 82003												
46-0-0	Townsend	6031	bulk	46	46.1							
34-0-0	Bridger	6036	bulk	34	34.3							
32-0-0	Denton	6481	bulk	32	31.6							
SOIL AMENDMENTS												
EKO COMPOST, INC. 3700 Compost Road Missoula, MT 59802												
	Missoula	6215	bulk							Cadmium(ppm) Mercury(ppm) Lead(ppm)		2.8 .26 44.0
SPECIALTY FERTILIZERS												
CHARLES H. LILLY CO. 7737 NE Kellingsworth Portland, OR 97218												
Bulb & Bloom Food	Glendive	6248		4	4.6	12	13.5	12	12.4	Sulfur Iron	3 2	3.7 2.2
Rose & Flower Food	Glendive	6249		5	4.5	8	6.6*	8	10.9	Sulfur Iron	4 2	5.0 3.0
Tomato & Vegetabld Food	Glendive	6250		4	4.2	8	7.4	6	7.1	Sulfur Iron	5 2	4.7 2.0
CHEVRON CHEMICAL COMPANY 940 Hensley Street Richmond, CA 94804												
Vegetable Garden Food	Polson	6268		5	5.2	10	11.8	10	10.9	Sulfur	3.5	4.8
General Purpose Plant Food	Ronan	6269		8	8.8	8	10.1	8	8.1	Sulfur	4.5	8.6
COLE'S PLANT SOIL INC. 22230 Russell Road Kent, WA 98031												
10-10-5	Kalispell	6259		10	9.9	10	10.2	5	5.6			
CONAGRA, INC. Box 2548 Great Falls, MT 59403												
Lawn & Garden Fertilizer	Billings	6199		21	22.0	10	5.0*	10	9.4	Sulfur	6	9.4
ESTECH, INC. 4060 E 26th St. Los Angeles, CA 90023												
K-Mart Tomato Food	Bozeman	6265		4	7.8	8	10.8	8	9.7			

MANUFACTURER/DISTRIBUTOR BRAND/PRODUCT NAME	PLACE OF COLLECTION	SAMPLE NUMBER	BAG/ BULK	NITROGEN C	NITROGEN F	P_2O_5 C	P_2O_5 F	K_2O C	K_2O F	MICRONUTRIENT	MICRONUTRIENT C	MICRONUTRIENT F
ESTECH, INC. (continued)												
K-Mart Bone Meal	Bozeman	6266				12	18.2					
K-Mart Rose Food	Bozeman	6267		6	4.5*	10	9.4	4	5.2			
GREEN EARTH PRODUCTS, INC. 1502 N. 25th Ave. Melrose Park, IL 60160												
African Violet Indoor Plant Food	Billings	6180		1	1.2	1	1.5	1	1.2			
THE HYPONEX COMPANY, INC. 3489 Sawmill Road Copley, OH 44321												
Time Release House Plant Food	Billings	6176		14	14.1	14	14.6	14	14.3			
House Plant Food (Flowering) (African Violet)	Billings	6177		6	6.2	6	6.9	6	7.0			
Hyponextra House Plant Food	Billings	6178		7	7.4	7	7.5	20	20.2			
INTERNATIONAL SPIKE, INC. Box 1750 Lexington, KT 40505												
Jobes Fertilizer Spikes	Glendive	6251		12	13.8	6	12.1	8	11.2			
LEISURE GROUP, INC. 1035 Watson Center Road Carson, CA 90745												
5-2-1	Great Falls	6216		5	4.3*	2	1.7	1	1.8			
MAGNOLIA PRODUCTS INC. 500 7th Ave. South Kirdland, WA 98033												
Ernst Malmo Rose & Flower Fertilizer	Bozeman	6256		8	9.8	10	13.4	9	8.7	Sulfur	9	9.3
Ernst Malmo All Purpose Garden & Lawn Fertilizer	Bozeman	6257		13	15.1	8	9.8	4	4.6	Sulfur Iron	18 1	17.8 .5*
NORTHRUP KING 1500 Jackson Street Minneapolis, MN 55413												
Shrub & Evergreen Food	Billings	6181		7	11.2	7	8.8	7	9.3			
O. M. SCOTT & SONS CO. Marysville, OH 43011												
Turf Builder	Helena	6270		24	24.0	3	3.5	3	3.0	Iron	2.2	4.1

MANUFACTURER/DISTRIBUTOR BRAND/PRODUCT NAME	PLACE OF COLLECTION	SAMPLE NUMBER	BAG/ BULK	NITROGEN C	NITROGEN F	P_2O_5 C	P_2O_5 F	K_2O C	K_2O F	MICRONUTRIENT	C	F
O. M. SCOTT & SONS CO. (continued)												
29-3-3	Helena	6271		29	29.2	3	4.1	3	4.1	Iron	2.88	3.77
22-3-3	Helena	6272		22	22.3	3	3.7	3	3.0	Iron	1.10	1.95
18-24-6	Helena	6273		18	18.3	24	25.1	6	6.3			
PAX COMPANY 580 W. 13th South Salt Lake City, UT 84115												
Pelleted Lawn Food	Billings	6200		25	30.3	3	4.4	5	6.5	Sulfur Iron	13 1	7.9* 1.2
ROSS DANIELS, INC. Box 65430 Des Moines, IA 50265												
Ross for Beautiful Evergreens	Bozeman	6254		10	11.4	20	23.8	20	23.3			
Ross for Prize Roses & Flowering Shrubs	Bozeman	6255		15	15.2	25	28.9	10	12.6			
SEARS, ROEBUCK & COMPANY Great Falls, MT 59403												
All Purpose Plant Food	Great Falls	6247		5	4.5	10	10.7	10	11.3			
STERN'S NURSERIES, INC. 607 W. Washington Street Geneva, NY 14456												
10-8-7	Kalispell	6258		10	10.2	8	9.4	7	7.4			
STIMUPLANT, INC. 2077 Parkwood Ave. Columbus, OH 43219												
All Purpose Plant Food Powder Concentrate	Billings	6179		15	17.6	30	34.4	15	14.5			
Fish Emulsion	Great Falls	6252		5	4.3*	1	1.3	1	2.1			
All Purpose Plant Food	Great Falls	6253		7	7.4	7	7.9	7	7.6			

1982 FERTILIZER ANALYSIS BREAKDOWN

COMMERCIAL	NO. ANALYZED	NO. DEFICIENT	% DEFICIENT
Nitrogen	468	18	3.8
P_2O_5	317	9	2.8
K_2O	90	0	0
Sulfur	38	7	18.4
SOIL AMENDMENTS			
Cadmium	1	0	--
Lead	1	0	--
Mercury	1	0	--
SPECIALTY			
Nitrogen	30	3	10.0
P_2O_5	31	2	6.4
K_2O	30	0	0
Sulfur	9	1	11.1
Iron	8	1	12.5

FERTILIZER SAMPLING

YEAR	NO. SAMPLES TAKEN	NO. SAMPLES DEFICIENT	% DEFICIENT
1977	448	32	7.1
1978	533	30	5.6
1979	365	21	5.7
1980	506	27	5.3
1981	428	24	5.1
1982	607	41	6.7

FERTILIZER TONNAGE

YEAR	TONNAGE
1972	226,939
1973	268,061
1974	219,197
1975	170,324
1976	283,925
1977	259,211
1978	301,487
1979	324,838
1980	295,958
1981	363,295
1982	384,387

FERTILIZER AND FERTILIZER MATERIAL SOLD IN MONTANA
By Crop Reporting Districts

January - June 1982

	NORTH WEST	NORTH CENTRAL	NORTH EAST	CENTRAL	SOUTH WEST	SOUTH CENTRAL	SOUTH EAST	OUT OF STATE
Anhydrous Ammonia	514	6,975	1,470	3,941	663	1,403	375	5,914
Ammonium Nitrate	2,711	20,451	2,811	10,483	6,164	11,213	2,053	167
Ammonium Sulfate	596	1,939	120	759	1,503	405	108	0
Ammonium Thiosulfate	114	487	167	378	105	0	0	3
Urea	464	9,524	2,616	3,805	942	2,624	1,247	376
Nitrogen Solutions	2,002	2,894	1,462	3,433	521	1,569	237	126
0-44-0, 0-45-0	587	371	222	40	578	528	334	0
Phosphoric Acid	6	265	0	0	0	102	0	0
Potash	1,495	4,484	679	1,760	784	1,009	1,437	268
Compost	157	0	0	0	0	0	0	18
Gypsum, Lime & Sulfur	157	284	8	18	143	439	75	281
Micronutrient Materials	11	61	10	179	17	149	18	470
18-46-0	831	12,460	10,129	4,048	1,073	5,560	2,599	80
16-20-0	3,666	1,370	79	1,814	3,683	1,847	64	22
11-48-0 — 11-55-0	1,015	18,757	3,448	7,962	2,684	1,643	539	188
30-10-0	17	1,071	8	280	0	465	0	0
10-34-0	309	2,708	1,222	614	302	0	0	0
2-1-0 ratios i.e. 27-14-0	1,404	310	7	870	64	527	0	0
1-1-0 ratios i.e. 23-23-0	0	436	191	234	0	262	0	0
1-1-1 ratios i.e. 16-16-16	766	284	24	40	45	216	0	0
Misc. Custom Blends, i.e.								
30-0-13, 26-0-9, 30-0-20	0	262	0	50	0	0	0	0
21-10-10, 25-10-10, 25-5-0	150	297	2	531	15	113	0	41
31-18-5, 18-4-3, 31-24-0	0	126	0	1,710	0	24	6	0
27-0-0-13, 20-0-0-7	0	272	0	16	0	94	0	0
13-39-0, 13-26-0, 9-18-9	0	143	794	96	0	438	0	0
0-30-15, 0-20-10	0	25	0	40	0	0	0	0
Misc. Spec. Fert., i.e.								
19-3-3, 22-3-3, 26-4-7	0	0	0	0	0	0	0	784
9-18-8, 18-24,6, 5-10-5	0	0	0	0	0	0	0	184
	16,972	86,256	25,469	43,101	19,286	30,633	9,092	8,922

FERTILIZER AND FERTILIZER MATERIAL SOLD IN MONTANA
By Crop Reporting Districts

July-December 1982

	NORTH WEST	NORTH CENTRAL	NORTH EAST	CENTRAL	SOUTH WEST	SOUTH CENTRAL	SOUTH EAST	OUT OF STATE
Anhydrous Ammonia	101	13,395	1,376	4,684	344	2,528	300	2,868
Ammonium Nitrate	424	6,225	960	6,634	1,603	2,583	1,410	520
Ammonium Sulfate	120	1,938	73	483	379	69	9	0
Ammonium Thiosulfate	35	1,048	13	206	0	0	0	324
Urea	48	6,147	739	2,621	267	1,441	336	446
Nitrogen Solutions	288	2,539	1,066	1,736	402	837	83	101
0-44-0, 0-45-0	11	43	179	93	395	218	105	10
Phosphoric Acid	0	288	0	0	0	103	0	0
Potash	299	2,498	440	1,392	544	323	374	0
Compost	304	0	0	0	0	0	0	19
Gypsum, Lime & Sulfur	160	134	2	0	0	477	25	243
Micronutrient Materials	11	52	59	50	32	118	11	257
18-46-0	165	6,154	5,428	3,504	907	3,536	2,192	0
16-20-0	539	882	170	1,191	677	466	2	0
11-48-0 — 11-55-0	387	13,396	1,944	7,366	1,320	1,489	573	0
30-10-0	0	22	0	0	0	37	0	0
10-34-0	53	3,949	31	214	221	35	0	0
2-1-0 ratios i.e. 27-14-0	107	93	2	62	1,716	10	1	0
1-1-0 ratios i.e. 23-23-0	21	88	10	58	7	22	0	0
1-1-1 ratios i.e. 16-16-16	121	0	0	14	0	10	0	0
Misc. Custom Blends, i.e.								
30-0-13, 26-0-9, 30-0-20	0	179	0	38	0	0	0	0
21-10-10, 25-10-10, 25-5-0	246	180	18	730	0	930	0	0
31-18-5, 18-4-3, 31-24-0	297	164	293	195	0	301	0	0
27-0-0-13, 20-0-0-7	0	639	0	219	0	151	0	0
13-39-0, 13-26-0, 9-18-9	183	428	18	132	0	362	0	0
0-30-15, 0-20-10	0	73	0	0	0	177	0	0
Misc. Spec. Fert., i.e.								
19-3-3, 22-3-3, 26-4-7	0	0	0	0	0	0	0	173
9-18-9,	0	0	0	0	0	0	0	322
	3,920	60,554	12,821	31,622	8,814	16,223	5,421	5,283

MONTANA DEPARTMENT OF AGRICULTURE
SUMMARY OF FERTILIZER AND FERTILIZER MATERIAL SOLD IN MONTANA

	Materials	TONS January-June	July-December	TOTAL
1.	Anhydrous Ammonia	21,255	25,596	46,851
2.	Ammonium Nitrate	56,053	20,359	76,412
3.	Ammonium Sulfate	5,430	3,071	8,501
4.	Ammonium Thiosulfate	1,254	1,626	2,880
5.	Urea	21,598	12,045	33,643
6.	Nitrogen Solutions	12,244	7,052	19,296
7.	0-44-0, 0-45-0	2,660	1,054	3,714
8.	Phosphoric Acid	373	391	764
9.	Potash	11,916	5,870	17,786
10.	Compost	175	323	498
11.	Gypsum, Lime & Sulfur	1,405	1,041	2,446
12.	Micronutrient Materials	915	590	1,505
	Ammoniated Phosphates & Mixtures			
13.	18-46-0	36,783	21,886	58,669
14.	16-20-0	12,545	3,927	16,472
15.	11-48-0 — 11-55-0	36,236	26,475	62,711
16.	30-10-0	1,841	59	1,900
17.	10-34-0	5,155	4,503	9,658
18.	2-1-0 ratios i.e. 27-14-0	3,182	1,991	5,173
19.	1-1-0 ratios i.e. 23-23-0	1,123	206	1,329
20.	1-1-1 ratios i.e. 16-16-16	1,375	145	1,520
	Misc. Custom Blends, i.e.			
21.	30-0-13, 26-0-9, 30-0-20	312	217	529
22.	21-10-10, 25-10-10, 25-5-0	1,149	2,104	3,253
23.	31-18-5, 18-4-3, 31-24-0	1,866	1,250	3,116
24.	27-0-0-13, 20-0-0-7	382	1,009	1,391
25.	13-39-0, 13-26-0, 9-18-9	1,471	1,123	2,594
26.	0-30-15, 0-20-10	65	250	315
	Misc. Spec. Fert., i.e.			
27.	19-3-3, 22-3-3, 26-4-7	784	173	957
28.	9-18-9, 18-24-6, 5-10-5	184	322	506
	TOTAL: ALL FERTILIZERS AND MATERIALS	239,731	144,658	384,387
	Total Nitrogen	67,673	45,976	113,649
	Total P_2O_5	43,606	28,251	71,857
	Total K_2O	7,710	3,871	11,581

MONTANA DEPARTMENT OF AGRICULTURE
PLANT INDUSTRY DIVISION
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